

CLAIMS

I/We claim:

- [c1] 1. A siding installation apparatus for engaging a first siding piece and supporting a second siding piece, the first siding piece having a bottom portion and a back surface, the apparatus comprising:
- a support member having a support surface to support the second siding piece;
- an engagement member projecting from the support member and configured to engage the bottom portion of the first siding piece by contacting at least the back surface of the first siding piece; and
- a securing assembly coupled to the support member to releasably restrict the support member from moving relative to the first siding piece.
- [c2] 2. The apparatus of claim 1 wherein the support member includes a first portion and a second portion coupled to the first portion, the first portion having an adjustment axis and the second portion being selectively movable relative to the first portion along the adjustment axis.
- [c3] 3. The apparatus of claim 1 wherein the support member has an adjustment axis, and wherein the engagement member includes a first portion configured to contact a bottom surface of the first siding piece and a second portion configured to contact the back surface of the first siding piece, the second portion having a longitudinal axis transverse to the adjustment axis.
- [c4] 4. The apparatus of claim 1 wherein:
- the securing assembly comprises a cam pivotably coupled to the support member and a contact element at least proximate to the cam; and

the cam is selectively pivotable in a first direction to force the contact element against a front surface of the first siding piece to restrict movement of the support member relative to the first siding piece.

[c5] 5. The apparatus of claim 1 wherein:
the securing assembly comprises a cam pivotably coupled to the support member and a contact element at least proximate to the cam, the contact element having a first surface with a first coefficient of friction and a second surface with a second coefficient of friction different than the first coefficient of friction; and
the cam is selectively pivotable in a first direction to force the contact element against a front surface of the first siding piece to restrict movement of the support member relative to the first siding piece.

[c6] 6. The apparatus of claim 1 wherein the securing assembly is configured to selectively engage a front surface of the first siding piece.

[c7] 7. The apparatus of claim 1 wherein the securing assembly comprises a contact element configured to contact a front surface of the first siding piece and a driving member configured to urge the contact element toward the first siding piece.

[c8] 8. The apparatus of claim 1 wherein the support member is configured to support the second siding piece so that a bottom surface of the second siding piece is spaced apart from a bottom surface of the first siding piece by a desired distance.

[c9] 9. The apparatus of claim 1 wherein the engagement member is attached to the support member.

[c10] 10. A siding installation apparatus for engaging a first siding piece and supporting a second siding piece, the first siding piece having a bottom portion and a back surface, the apparatus comprising:

a support member having a first portion and a second portion coupled to the first portion, the first portion having an adjustment axis and the second portion being selectively movable relative to the first portion along the adjustment axis, the second portion having a support surface to support the second siding piece;

an engagement member projecting from the first portion of the support member, the engagement member configured to engage the bottom portion of the first siding piece by contacting at least the back surface of the first siding piece; and

a securing assembly coupled to the first portion of the support member to releasably restrict the first portion of the support member from moving relative to the first siding piece.

[c11] 11. The apparatus of claim 10 wherein the engagement member includes a first portion configured to contact a bottom surface of the first siding piece and a second portion configured to contact the back surface of the first siding piece, the second portion having a longitudinal axis transverse to the adjustment axis.

[c12] 12. The apparatus of claim 10 wherein:

the securing assembly comprises a cam pivotably coupled to the first portion of the support member and a gripper at least proximate to the cam; and

the cam is selectively pivotable in a first direction to force the contact element against a front surface of the first siding piece to restrict movement of the first portion of the support member relative to the first siding piece.

- [c13] 13. The apparatus of claim 10 wherein:
the securing assembly comprises a cam pivotably coupled to the first portion of the support member and a contact element at least proximate to the cam, the contact element having a first surface with a first coefficient of friction and a second surface with a second coefficient of friction different than the first coefficient of friction; and the cam is selectively pivotable in a first direction to force the contact element against a front surface of the first siding piece to restrict movement of the first portion of the support member relative to the first siding piece.
- [c14] 14. The apparatus of claim 10 wherein the securing assembly is configured to selectively engage a front surface of the first siding piece.
- [c15] 15. The apparatus of claim 10 wherein the securing assembly comprises a contact element configured to contact a front surface of the first siding piece and a driving member configured to urge the contact element toward the first siding piece.
- [c16] 16. The apparatus of claim 10 wherein the support member is configured to support the second siding piece so that a bottom surface of the second siding piece is spaced apart from a bottom surface of the first siding piece by a desired distance.
- [c17] 17. The apparatus of claim 10, further comprising a locking device to restrict movement between the first and second portions of the support member.
- [c18] 18. The apparatus of claim 10, further comprising a locking device to lock the second portion of the support member in one of a plurality of discrete positions relative to the first portion of the support member.

[c19] 19. A siding installation apparatus for engaging a first siding piece and supporting a second siding piece, the first siding piece having a bottom surface and a back surface, the apparatus comprising:

a support member having an adjustment axis and a support surface to support the second siding piece;

an engagement member coupled to the support member, the engagement member having a first portion configured to contact the bottom surface of the first siding piece and a second portion configured to contact the back surface of the first siding piece, the second portion having a longitudinal axis transverse to the adjustment axis; and

a securing assembly coupled to the support member to releasably restrict the support member from moving relative to the first siding piece.

[c20] 20. The apparatus of claim 19 wherein the second portion of the engagement member has a first end coupled to the first portion of the engagement member and a second end opposite the first end, wherein the distance between the first end and the support member is greater than the distance between the second end and the support member.

[c21] 21. The apparatus of claim 19 wherein the support member includes a first portion having the adjustment axis and a second portion coupled to the first portion, the second portion being selectively movable relative to the first portion along the adjustment axis.

[c22] 22. The apparatus of claim 19 wherein:
the securing assembly comprises a cam pivotably coupled to the support member and a contact element at least proximate to the cam; and
the cam is selectively pivotable in a first direction to force the contact element against a front surface of the first siding piece to restrict movement of the support member relative to the first siding piece.

- [c23] 23. The apparatus of claim 19 wherein:
the securing assembly comprises a cam pivotably coupled to the support member and a contact element at least proximate to the cam, the contact element having a first surface with a first coefficient of friction and a second surface with a second coefficient of friction different than the first coefficient of friction; and
the cam is selectively pivotable in a first direction to force the contact element against a front surface of the first siding piece to restrict movement of the support member relative to the first siding piece.
- [c24] 24. The apparatus of claim 19 wherein the securing assembly is configured to selectively engage a front surface of the first siding piece.
- [c25] 25. The apparatus of claim 19 wherein the securing assembly comprises a contact element configured to contact a front surface of the first siding piece and a driving member configured to urge the contact element toward the first siding piece.
- [c26] 26. The apparatus of claim 19 wherein the support member is configured to support the second siding piece so that a bottom surface of the second siding piece is spaced apart from a bottom surface of the first siding piece by a desired distance.
- [c27] 27. A siding installation apparatus for engaging a first siding piece and supporting a second siding piece, the first siding piece having a bottom portion and a front surface, the apparatus comprising:
a support member having a support surface to support the second siding piece;
an engagement member projecting from the support member and configured to engage the bottom portion of the first siding piece; and

a securing assembly including a cam pivotably coupled to the support member and a contact element at least proximate to the cam, wherein the cam is selectively pivotable in a first direction to force the contact element against the front surface of the first siding piece to restrict movement of the support member relative to the first siding piece.

[c28] 28. The apparatus of claim 27 wherein the support member includes a first portion and a second portion coupled to the first portion, the first portion having an adjustment axis and the second portion being selectively movable relative to the first portion along the adjustment axis.

[c29] 29. The apparatus of claim 27 wherein the support member has an adjustment axis, and wherein the engagement member includes a first portion configured to contact a bottom surface of the first siding piece and a second portion configured to contact a back surface of the first siding piece, the second portion having a longitudinal axis transverse to the adjustment axis.

[c30] 30. The apparatus of claim 27 wherein the contact element comprises a rubber portion configured to contact the front surface of the first siding piece and a nylon portion configured to contact the cam.

[c31] 31. The apparatus of claim 27 wherein the contact element has a first surface with a first coefficient of friction and a second surface with a second coefficient of friction different than the first coefficient of friction.

[c32] 32. The apparatus of claim 27 wherein the support member is configured to support the second siding piece so that a bottom surface of the second siding piece is spaced apart from a bottom surface of the first siding piece by a desired distance.

[c33] 33. A siding installation apparatus, comprising:
an engagement member configured to be positioned at least proximate to a bottom surface of a first siding piece;
a support member coupled to the engagement member and configured to support a second siding piece so that a bottom surface of the second siding piece is spaced apart from the bottom surface of the first siding piece by a desired distance, wherein the engagement member and the support member do not contact a top surface of the first siding piece; and
a means for selectively restricting movement between the support member and the first siding piece.

[c34] 34. The apparatus of claim 33 wherein the support member includes a first portion and a second portion coupled to the first portion, the first portion having an adjustment axis and the second portion being selectively movable relative to the first portion along the adjustment axis.

[c35] 35. The apparatus of claim 33 wherein the support member has an adjustment axis, and wherein the engagement member includes a first portion configured to contact the bottom surface of the first siding piece and a second portion configured to contact a back surface of the first siding piece, the second portion having a longitudinal axis transverse to the adjustment axis.

[c36] 36. The apparatus of claim 33 wherein:
the means for selectively restricting movement includes a cam pivotably coupled to the support member and a contact element at least proximate to the cam; and
the cam is selectively pivotable in a first direction to force the contact element against a front surface of the first siding piece to restrict movement of the support member relative to the first siding piece.

[c37] 37. The apparatus of claim 33 wherein the means for selectively restricting movement comprises a contact element configured to contact a front surface of the first siding piece and a driving member configured to urge the contact element toward the first siding piece.

[c38] 38. A method for installing siding pieces on a wall, the method comprising:

engaging a bottom portion of a first siding piece with an engagement member of a siding installation apparatus without engaging a top surface of the first siding piece, the first siding piece being attached to the wall;

releasably restricting movement of a support member of the siding installation apparatus relative to the first siding piece, the support member being attached to the engagement member; and

supporting at least a portion of a second siding piece with the support member of the siding installation apparatus.

[c39] 39. The method of claim 38 wherein engaging the bottom portion of the first siding piece comprises positioning at least a portion of the engagement member between the first siding piece and the wall.

[c40] 40. The method of claim 38 wherein releasably restricting movement of the support member comprises selectively engaging a front surface of the first siding piece with a securing assembly.

[c41] 41. The method of claim 38 wherein:
the siding installation apparatus further comprises a securing assembly including a cam pivotably coupled to the support member and a contact element at least proximate to the cam; and

releasably restricting movement of the support member comprises pivoting the cam to force the contact element against a front surface of the first siding piece.

[c42] 42. The method of claim 38 wherein engaging the bottom portion of the first siding piece comprises positioning the bottom portion of the first siding piece between the engagement member and the support member.

[c43] 43. The method of claim 38 wherein:
the support member includes a first portion and a second portion coupled to the first portion, the first portion having an adjustment axis and the second portion being selectively movable relative to the first portion along the adjustment axis; and
the method further comprises moving the second portion of the support member relative to the first portion to adjust the spacing between a bottom surface of the first siding piece and a bottom surface of the second siding piece before engaging the first siding piece.

[c44] 44. The method of claim 38, further comprising:
attaching the second siding piece to the wall;
removing the siding installation apparatus from the first siding piece;
engaging a bottom portion of the second siding piece with the engagement member;
releasably restricting movement of the support member relative to the second siding piece; and
supporting at least a portion of a third siding piece with the support member.

- [c45] 45. A method for installing siding pieces on a wall with a siding installation apparatus that includes a support member and an engagement member projecting from the support member, the method comprising:
- positioning the engagement member of the siding installation apparatus between a back surface of a first siding piece and the wall, the first siding piece being attached to the wall;
- contacting a front surface of the first siding piece to selectively restrict movement of the support member relative to the first siding piece;
- and
- supporting at least a portion of a second siding piece with the support member so that a bottom surface of the second siding piece is spaced apart from a bottom surface of the first siding piece by a desired distance.
- [c46] 46. The method of claim 45 wherein positioning the engagement member comprises positioning the support member at least proximate to a front surface of the first siding piece.
- [c47] 47. The method of claim 45 wherein:
- the siding installation apparatus further comprises a securing assembly including a cam pivotably coupled to the support member and a contact element at least proximate to the cam; and
- contacting the front surface of the first siding piece comprises pivoting the cam to force the contact element against the front surface.
- [c48] 48. The method of claim 45 wherein positioning the engagement member comprises positioning a bottom portion of the first siding piece between the engagement member and the support member.

[c49]

49. The method of claim 45 wherein:

the support member includes a first portion and a second portion coupled to the first portion, the first portion having an adjustment axis and the second portion being selectively movable relative to the first portion along the adjustment axis; and

the method further comprises moving the second portion of the support member relative to the first portion to adjust the spacing between the first siding piece and the second siding piece before positioning the engagement member.

[c50]

50. A method for installing siding pieces on a wall with a siding installation apparatus that includes a support member, an engagement member projecting from the support member, and a securing assembly coupled to the support member, the method comprising:

positioning the engagement member of the siding installation apparatus under a bottom surface of a first siding piece, the first siding piece being attached to the wall;

actuating the securing assembly to restrict movement between the support member and the first siding piece by contacting a front surface of the first siding piece; and

placing a bottom portion of a second siding piece on a support surface of the support member.

[c51]

51. The method of claim 50 wherein positioning the engagement member comprises positioning the support member proximate to the front surface of the first siding piece.

[c52]

52. The method of claim 50 wherein:

the securing assembly includes a cam pivotably coupled to the support member and a contact element at least proximate to the cam; and

actuating the securing assembly comprises pivoting the cam to force the contact element against the front surface of the first siding piece.

[c53] 53. The method of claim 50 wherein positioning the engagement member comprises positioning a bottom portion of the first siding piece between the engagement member and the support member.

[c54] 54. The method of claim 50 wherein positioning the engagement member comprises positioning at least a portion of the engagement member between the first siding piece and the wall.

[c55] 55. The method of claim 50 wherein:
the support member includes a first portion and a second portion coupled to the first portion, the first portion having an adjustment axis and the second portion being selectively movable relative to the first portion along the adjustment axis; and
the method further comprises moving the second portion of the support member relative to the first portion to adjust the spacing between the first siding piece and the second siding piece before positioning the engagement member.

[c56] 56. A method for installing siding pieces on a wall with a siding installation apparatus that includes a support member, an engagement member projecting from the support member, and a securing assembly coupled to the support member, the method comprising:
positioning the engagement member of the siding installation apparatus under a bottom surface of a first siding piece, the first siding piece being attached to the wall;
clamping a lower portion of the first siding piece to restrict movement between the support member and the first siding piece; and

placing a bottom portion of a second siding piece on a support surface of the support member.

[c57] 57. The method of claim 56 wherein:
the securing assembly includes a cam pivotably coupled to the support member and a contact element at least proximate to the cam; and
clamping the lower portion comprises pivoting the cam of the securing assembly to force the contact element against the front surface of the first siding piece.

[c58] 58. The method of claim 56 wherein:
positioning the engagement member comprises positioning at least a portion of the engagement member between the first siding piece and the wall; and
clamping the lower portion comprises exerting a force against a front surface of the first siding piece.